Project Emissions Examples for Threshold Discussion, 9_8_08, Drafted by Matt Kuharic and Hilary Franz											
Page 1 Name of Project	**Description of Project**	**Estimated Project Emissions (MTCO2e/yr)**	**Allowable Emissions after a 15% Reduction**	**Allowable Emissions after a 30% Reduction**	**Allowable Emissions after a 50% Reduction**	**Allowable Emissions after a 80% Reduction**	**Allowable Emissions after a 90% Reduction**	**If set bright line of based on market capture of 90% (assuming CAPCOA #s here)****	**Methodology of Estimate**	Source	Notes:
California - Gateway Community Development Project D E I R	810 new residential units, approx. 25,950 sq. ft. of commercial space, and approx. 160,000 sq. ft. of open space	9,895	8,411	6,927	4,948	1,979	990	900	GHG emissions associated with the proposed project were calculated using the URBEMIS 2007 Version 9.2.0 model of the California Air Resources Board and trip generation data from the project traffic analysis. Most emissions come from heating and cooling water and from transportation. Also included are signficant emissions from solid waste.	http://www.cegamap.com/search_ghg.php?mode=view&action=view&id=1269	KC Worksheet estimates 11,985 MTCO2e/year for this project using multi-family units in a large building, including embodied emissions and not including the "open space".
California - San Rafael Rock Quarry Amended Quarry Permit Draft E I R	Crush, sort, and stockpile earth and rock quarried from the site, dock and load barges with earth, sand, and rock quarried from the site, operate an asphalt batch plant, and load and weigh commercial trucks that export and transport material over Point San Pedro Road	36,871	31,340	25,810	18,435	7,374	3,687	900	(Mostly from offsite trucks and tugboats). Based on current emissions.	http://www.cegamap.com/search_ghg.php?mode=view&action=view&id=1751	
California - Keiser Park Draft E I R	Construct a recreation center, an aquatic center (with two swimming pools), three ball fields (two with soccer field overlays and one with lighting), restroom facilities, and two children's play areas	1,599	1,359	1,119	800	320	160	900	Master Plan CO2 emissions estimates were made using URBEMIS 2007 v.9.2.2 with trip generation data from the traffic report and other information from the project description	http://www.cegamap.com/search_ghg.php?mode=view&action=view&id=1765	
California - El Segundo Refinery - Product Reliability and Optimization Project Draft EIR	Chevron is proposing modifications to an installation of new equipment at the El Segundo Refinery. Proposed modifications will occur in the No. 2 Crude Unit, No. 2 Residuum Stripper Unit, Minalk/Merox Unit, Waste Gas Compressors, Fluidized Catalytic Cracking Unit, Alkylation Unit, Vacuum Residuum Desulfurization Unit, ISOMAX Unit, Cogeneration Facilities, Railcar Loading/Unloading Rack, and improvements to electricity and water service systems. New process units include sulfur processing facilities (i.e., Sour Water Stripper, Sulfur Recovery Unit, and Tail Gas Unit), Vapor Recovery and Flare System, Water Treatment Facilities (i.e., reverse osmosis units and oxygen units and oxygen removal units), additional storage capacity, a new cooling tower, and hydrogen compression and transfer facilities. Emissions before proposed mitigation:	281,150	238,978	196,805	140,575	56,230	28,115	900	Most emissions in unmitigated scenario were for purchased electricity, a new boiler, and a tail gas unit incerator. Most emissions in the mitigated scenario are from a new cogeneration faciliity.	http://www.cegamap.com/search_ghg.php?mode=view&action=view&id=1786	Note: After proposed mitigation, emissions are estimated to be 193,910, 31% below the unmitigated scenario
King County - Hospital	King County - Average Sized In Patient Health Care Facility (241,000 square feet)	9,875	8,394	6,913	4,938	1,975	988	900	King County Worksheet. Very rough estimate only includes transportation of employees.	http://www.metrokc.gov/ddes/forms/SEPA-GHG-EmissionsWorksheet-Bulletin26.xls	
King County - Lodge	King County - Average Sized Lodge (36,000 square feet)	534	454	374	267	107	53	900	King County Worksheet. Very rough estimate only includes transportation of employees.	http://www.metrokc.gov/ddes/forms/SEPA-GHG-EmissionsWorksheet-Bulletin26.xls	

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King County - Small Bridge Replacement	KC Roads Services Division - Replacement of Sunday Creek Bridge, located 16 miles northwest of North Bend. The new bridge will span 100 feet and be 18 feet wide.	322	273.7	225.4	161	64.4	32	900	GHG emissions associated with the proposed project were calculated for construction emissions only. Estimate made were based proposed materials, equipment, and transportation impacts due to construction. Project worksheet developed based on known and researched GHG emissions.	Contact Peter Drakos, King County Roads Division, peter.drakos@kingcounty.gov	
Massachusetts - Reading Woods	Demolish six buildings within an office and warehouse park in order to construct 202 housing units, 160 units of senior housing and assisted living facilities, 16 townhouses, and 160,000 square feet of office space, and parking for 1,061 vehicles on a 24.8 acre site	44,624	37,930	31,237	22,312	8,925	4,462	900	Included a GHG analysis, using the EQUEST model to compute direct and indirect CO2 emissions from stationary sources and the USEPA's COMMUTER model Version 2 to estimate changes in CO2 emissions due to roadway mitigation and traffic demand management measures.		
Massachusetts - Shoppe at Harrington Farms	Two phased development of approximately 113,000 sq ft supermarket, retail and a restaurant, in three separate buildings n a 24.8 in total utilizing approximately 113,000 square feet in suburban area. It will generate approximatey 7,281 new avg daiy trips	7,504	6,394	5,253	3,752	1,501	750	900	Direct and indirect carbon dioxide (C02) emissions from the proposed direct and indirect building sources were calculated using the Tech Environmental Energy Model. C02 emissions produced by the project-generated vehicle trips were analyzed using the EPA MOBILE 6.2 Source Emission Factor Model.	http://www.mass.gov/envir/mepa/pdffiles/certificates/051608/14222eenf.pdf	
Massachusetts - Lowe's Home Centers, Inc.	The project involves the redevelopment of a 16.3-acre parcel of commercial and industrial property to include a 15 1,000 sf Lowe's home improvement retail store with attached garden center. The project site is located across from the MBTA Quincy Adams Red Line station in Quincy.	6,418	5,455	4,493	3,209	1,284	642	900	In the analysis, the Proponent calculated GHG emissions from both mobile and stationary sources. The GHG emissions analysis evaluated the change in carbon dioxide (COz) emissions from project-related traffic and proposed building sources. Direct and indirect C02 emissions from the proposed building sources were calculated using the Tech Environmental Energy Model.	http://www.mass.gov/envir/mepa/pdffiles/certificates/051608/14222eenf.pdf	The existing project site contains approximately 8 separate commercial and industrial buildings (approximately 159,000 sf total), approximately 377 surface parking, a 1,050 linear foot The redevelopment project will involve the demolition of the approximately eight existing buildings and structures (15 1,000 sf total) and the construction of a new 124,216 sf Lowe's Home Improvement Store with a 29,926 sf garden center, 435 surface parking spaces, and new stormwater management infrastructure.
Massachusetts - Westinghouse Redev't	The project involves 40 acres of mostly developed land. The site currently contains approximately 9 16,000 sf of development in the form of multiple warehouses, manufacturing buildings and surface parking for approximately 900 vehicles. The project includes the complete redevelopment of the project site with approximately 470,000 sf of retail and restaurant uses (a net reduction of 446,000 sf) and 2,059 parking spaces	9,526	8,097	6,668	4,763	1,905	953	900	Direct and indirect carbon dioxide (CO2) emissions from the proposed building sources were calculated using the EQUEST model. The Proponent evaluated the change in C02 emissions from project-related traffic and proposed buildinglenergy consumption sources for the 2007 Existing, the 201 2 No-Build, the 201 2 Build and the 2012 Build with Improvements Conditions.	http://www.mass.gov/envir/mepa/pdffiles/certificates/041808/14205eenf.pdf	

** Based on estimates in the CAPCOA report a quantitiative threshold based on Market Capture (90& of projects/ 900 tpy) would capture residential dev't > 50 dwu; office space > 36,000 sq. ft.; retail space > 11,000 sq. ft.; supermarket > 6,300 sq. ft.; and small, medium, and large industrial